

NTP Historical Controls Report

All Routes and Vehicles

Harlan Sprague-Dawley RATS

May 2011

REPORT DESCRIPTION

This report shows the tumor rates of control group animals from selected studies. The studies used are shown on the Study Summary page.

The report combines all the data from all of the historical control studies into one section. To see this data broken up by route and vehicle you must run the "By Route And Vehicle" report.

The individual tumor rates shown on the data pages of the report relate to the Study Summary page as follows: the tumor rates are shown in the same order as the Study Summary page, except that they are grouped horizontally in sets of three, with the males in the first set of three and the females in the second set. For example if the study summary showed the studies like this:

Male

M1

M2

M3

M4

M5

Female

F1

F2

F3

F4

F5

the data would be shown as:

Male			Female		
M1	M2	M3	F1	F2	F3
M4	M5		F4	F5	

Directly beneath the individual tumor rates on the data pages are the overall totals for that tumor/site combination. This includes the total tumors/animals, the overall mean (in parentheses), the mean of the study means, and the standard deviation of the study means.

Studies with no control animals of a particular gender are listed on the summary page with the Number of Animals shown as zero and the Start Date and Length of Study shown as "N/A". On the data pages there are blank spaces where tumor rates for these studies would normally be found, so that the male and female rates for the remaining studies can be easily compared.

Version: May2011
Contract/Lab: All Laboratories
Species: RATS
Strain: Harlan Sprague-Dawley
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: ALL ROUTES
Vehicle: ALL VEHICLES

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Report Date: 05/17/2011

Study Summary

Laboratory Name	Study Number	Study Start Date	Length of Study in Days	Number of Animals Total and (#/Cage)	Number Surviving and (Mean Life Span)	Maximum Mean Weekly Body Weight	Chemical
Male							
Battelle Columbus Laboratory	052030401	N/A	N/A	0(0)	0(0)	N/A	TEF evaluation (PCB 118)
Battelle Columbus Laboratory	058814806	01/29/03	727	50(3)	28(665)	606.4	3,3',4,4'-Tetrachloroazobenzene
Female							
Battelle Columbus Laboratory	052030401	03/26/04	733	52(5)	21(616)	383.5	TEF evaluation (PCB 118)
Battelle Columbus Laboratory	058814806	01/30/03	727	50(5)	25(652)	385.7	3,3',4,4'-Tetrachloroazobenzene

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Harlan Sprague-Dawley
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: ALL ROUTES
Vehicle: ALL VEHICLES

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Male						Female					
#All Organs: Benign Tumors											
Overall Incidence	Total	40/50 (80%)	40/50 (80%) Mean 80%	SD 0%		Total	43/52 (83%) 83/102 (81.37%)	40/50 (80%) Mean 81.35%	SD 1.9%		
.....											
#All Organs: Malignant Tumors											
Overall Incidence	Total	9/50 (18%)	9/50 (18%) Mean 18%	SD 0%		Total	15/52 (29%) 28/102 (27.45%)	13/50 (26%) Mean 27.42%	SD 2.01%		
.....											
#All Organs: Malignant and Benign Tumors											
Overall Incidence	Total	44/50 (88%)	44/50 (88%) Mean 88%	SD 0%		Total	48/52 (92%) 92/102 (90.2%)	44/50 (88%) Mean 90.15%	SD 3.05%		
.....											
#All Organs: Hemangiosarcoma											
Overall Incidence	Total	1/50 (2%)	1/50 (2%) Mean 2%	SD 0%		Total	1/52 (2%) 1/102 (0.98%)	0/50 (0%) Mean 0.96%	SD 1.36%		
.....											
#All Organs: Hemangiosarcoma or Hemangioma											
Overall Incidence	Total	1/50 (2%)	1/50 (2%) Mean 2%	SD 0%		Total	1/52 (2%) 1/102 (0.98%)	0/50 (0%) Mean 0.96%	SD 1.36%		
.....											
#All Organs: Histiocytic Sarcoma											
Overall Incidence	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%		Total	1/52 (2%) 2/102 (1.96%)	1/50 (2%) Mean 1.96%	SD 0.05%		

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

Male						Female								
#All Organs:														
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated														
			1/50	(2%)			0/52	(0%)	1/50	(2%)				
Overall Incidence	Total	1/50	(2%)	Mean	2%	SD	0%	Total	1/102	(0.98%)	Mean	1%	SD	1.41%
#All Organs:														
Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type														
			1/50	(2%)			2/52	(4%)	0/50	(0%)				
Overall Incidence	Total	1/50	(2%)	Mean	2%	SD	0%	Total	2/102	(1.96%)	Mean	1.92%	SD	2.72%
#Adrenal Cortex:														
Adenoma														
			1/50	(2%)			2/52	(4%)	1/50	(2%)				
Overall Incidence	Total	1/50	(2%)	Mean	2%	SD	0%	Total	3/102	(2.94%)	Mean	2.92%	SD	1.31%
#Adrenal Cortex:														
Carcinoma														
			0/50	(0%)			1/52	(2%)	0/50	(0%)				
Overall Incidence	Total	0/50	(0%)	Mean	0%	SD	0%	Total	1/102	(0.98%)	Mean	0.96%	SD	1.36%
#Adrenal Medulla:														
Pheochromocytoma Benign														
			5/50	(10%)			3/52	(6%)	3/50	(6%)				
Overall Incidence	Total	5/50	(10%)	Mean	10%	SD	0%	Total	6/102	(5.88%)	Mean	5.88%	SD	0.16%
#Adrenal Medulla:														
Pheochromocytoma: Benign, Complex, Malignant, NOS														
			5/50	(10%)			3/52	(6%)	3/50	(6%)				
Overall Incidence	Total	5/50	(10%)	Mean	10%	SD	0%	Total	6/102	(5.88%)	Mean	5.88%	SD	0.16%

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

Male						Female								
*Brain:														
Astrocytoma Benign														
			1/50	(2%)			0/52	(0%)	0/50	(0%)				
Overall Incidence	Total	1/50	(2%)	Mean	2%	SD	0%	Total	0/102	(0%)	Mean	0%	SD	0%

*Brain:														
Oligodendroglioma, Glioma, or Astrocytoma														
			1/50	(2%)			0/52	(0%)	0/50	(0%)				
Overall Incidence	Total	1/50	(2%)	Mean	2%	SD	0%	Total	0/102	(0%)	Mean	0%	SD	0%

#Eye:														
Schwannoma Malignant														
			1/50	(2%)			0/52	(0%)	0/50	(0%)				
Overall Incidence	Total	1/50	(2%)	Mean	2%	SD	0%	Total	0/102	(0%)	Mean	0%	SD	0%

#Intestine Small: Duodenum:														
Carcinoma														
			0/50	(0%)			0/52	(0%)	1/50	(2%)				
Overall Incidence	Total	0/50	(0%)	Mean	0%	SD	0%	Total	1/102	(0.98%)	Mean	1%	SD	1.41%

#Intestine Small: Site Unspecified:														
Carcinoma														
			0/50	(0%)			0/52	(0%)	1/50	(2%)				
Overall Incidence	Total	0/50	(0%)	Mean	0%	SD	0%	Total	1/102	(0.98%)	Mean	1%	SD	1.41%

#Intestine Small: Site Unspecified:														
Carcinoma or Adenoma														
			0/50	(0%)			0/52	(0%)	1/50	(2%)				
Overall Incidence	Total	0/50	(0%)	Mean	0%	SD	0%	Total	1/102	(0.98%)	Mean	1%	SD	1.41%

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

Male						Female					
*Islets, Pancreatic: Adenoma											
Overall Incidence	Total	2/50 (4%)	2/50 Mean 4%	(4%)	SD 0%	Total	0/52 (0%)	0/102 (0%)	0/50 (0%)	0/100 (0%)	SD 0%
*Islets, Pancreatic: Carcinoma or Adenoma											
Overall Incidence	Total	2/50 (4%)	2/50 Mean 4%	(4%)	SD 0%	Total	0/52 (0%)	0/102 (0%)	0/50 (0%)	0/100 (0%)	SD 0%
*Kidney: Renal Tubule: Lipoma											
Overall Incidence	Total	0/50 (0%)	0/50 Mean 0%	(0%)	SD 0%	Total	0/52 (0%)	1/102 (0.98%)	1/50 (2%)	1/100 (1%)	SD 1.41%
*Liver: Cholangiocarcinoma											
Overall Incidence	Total	0/50 (0%)	0/50 Mean 0%	(0%)	SD 0%	Total	0/52 (0%)	1/102 (0.98%)	1/50 (2%)	1/100 (1%)	SD 1.41%
*Liver: Cholangioma											
Overall Incidence	Total	0/50 (0%)	0/50 Mean 0%	(0%)	SD 0%	Total	1/52 (2%)	1/102 (0.98%)	0/50 (0%)	0/100 (0%)	SD 1.36%
*Liver: Hepatocellular Adenoma											
Overall Incidence	Total	0/50 (0%)	0/50 Mean 0%	(0%)	SD 0%	Total	0/52 (0%)	2/102 (1.96%)	2/50 (4%)	2/100 (2%)	SD 2.83%

#: Denominator is number of animals necropsied

Version: May2011
Contract/Lab: All Laboratories
Species: RATS
Strain: Harlan Sprague-Dawley
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: ALL ROUTES
Vehicle: ALL VEHICLES

Male					Female				
*Liver: Hepatocellular Carcinoma or Hepatocellular Adenoma									
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/52 (0%) 2/102 (1.96%)	Mean 2%	SD 2.83%	
*Liver: Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma									
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/52 (0%) 2/102 (1.96%)	Mean 2%	SD 2.83%	
*Lung: Alveolar/Bronchiolar Adenoma									
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/51 (0%) 0/101 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Carcinoma									
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/51 (0%) 0/101 (0%)	Mean 0%	SD 0%	
*Lung: Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma									
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	0/51 (0%) 0/101 (0%)	Mean 0%	SD 0%	
#Mammary Gland: Adenoma									
Overall Incidence	Total	0/50 (0%)	Mean 0%	SD 0%	Total	0/52 (0%) 1/102 (0.98%)	Mean 1%	SD 1.41%	
*: Denominator is number of animals with tissues examined microscopically #: Denominator is number of animals necropsied									

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

			Male			Female		
#Mammary Gland: Carcinoma								
Overall Incidence	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%		Total	2/52 (4%) 6/102 (5.88%)	4/50 (8%) Mean 5.92% SD 2.94%
#Mammary Gland: Carcinoma or Adenoma								
Overall Incidence	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%		Total	2/52 (4%) 7/102 (6.86%)	5/50 (10%) Mean 6.92% SD 4.35%
#Mammary Gland: Fibroadenoma								
Overall Incidence	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%		Total	25/52 (48%) 56/102 (54.9%)	31/50 (62%) Mean 55.04% SD 9.85%
#Mammary Gland: Fibroma, Fibroadenoma or Adenoma								
Overall Incidence	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%		Total	25/52 (48%) 56/102 (54.9%)	31/50 (62%) Mean 55.04% SD 9.85%
#Mammary Gland: Fibroma, Fibroadenoma, Carcinoma, or Adenoma								
Overall Incidence	Total	0/50 (0%)	0/50 (0%) Mean 0%	SD 0%		Total	27/52 (52%) 59/102 (57.84%)	32/50 (64%) Mean 57.96% SD 8.54%
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma								
Overall Incidence	Total	1/50 (2%)	1/50 (2%) Mean 2%	SD 0%		Total	0/52 (0%) 0/102 (0%)	0/50 (0%) Mean 0% SD 0%

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

Male										Female									
#Oral Cavity (Oral Mucosa, Tongue, Pharynx, Tooth, Gingiva): Squamous Cell Carcinoma, Papilloma Squamous, or Papilloma																			
Overall Incidence		Total	1/50 (2%)	Mean	1/50 (2%)	SD	0%	Total		0/52 (0%)	Mean	0/50 (0%)	SD	0%					

#Oral Mucosa: Squamous Cell Carcinoma																			
Overall Incidence		Total	1/50 (2%)	Mean	1/50 (2%)	SD	0%	Total		0/52 (0%)	Mean	0/50 (0%)	SD	0%					

#Ovary: Granulosa Cell Tumor Malignant																			
Overall Incidence								Total	0/52 (0%)	Mean	1/50 (2%)	SD	1.41%						

#Ovary: Granulosa Cell Tumor: Benign, Malignant, NOS																			
Overall Incidence								Total	0/52 (0%)	Mean	1/50 (2%)	SD	1.41%						

#Ovary: Luteoma																			
Overall Incidence								Total	1/52 (2%)	Mean	0/50 (0%)	SD	1.36%						

#Pancreas: Adenoma																			
Overall Incidence		Total	9/50 (18%)	Mean	9/50 (18%)	SD	0%	Total		0/52 (0%)	Mean	0/50 (0%)	SD	0%					

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Harlan Sprague-Dawley
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: ALL ROUTES
Vehicle: ALL VEHICLES

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Male						Female					
*Pancreas: Carcinoma											
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%	Total	0/52 (0%)	1/102 (0.98%)	1/50 (2%)	Mean 1%	SD 1.41%
.....											
*Pancreas: Carcinoma or Adenoma											
Overall Incidence	Total	9/50 (18%)	9/50 (18%)	Mean 18%	SD 0%	Total	0/52 (0%)	1/102 (0.98%)	1/50 (2%)	Mean 1%	SD 1.41%
.....											
*Parathyroid Gland: Adenoma											
Overall Incidence	Total	1/43 (2.33%)	1/43 (2%)	Mean 2.33%	SD 0%	Total	0/47 (0%)	0/93 (0%)	0/46 (0%)	Mean 0%	SD 0%
.....											
#Peripheral Nerve: Schwannoma Malignant											
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%	Total	0/52 (0%)	1/102 (0.98%)	1/50 (2%)	Mean 1%	SD 1.41%
.....											
#Peripheral Nerve: Schwannoma: Benign, Malignant, NOS											
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%	Total	0/52 (0%)	1/102 (0.98%)	1/50 (2%)	Mean 1%	SD 1.41%
.....											
*Pituitary Gland: Pars Distalis or Unspecified Site: Adenoma											
Overall Incidence	Total	13/50 (26%)	13/50 (26%)	Mean 26%	SD 0%	Total	17/52 (33%)	30/102 (29.41%)	13/50 (26%)	Mean 29.35%	SD 4.73%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

Male						Female					
*Pituitary Gland: Pars Distalis or Unspecified Site: Carcinoma											
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%		Total	2/52 (4%)	Mean 0/50 (0%)	SD 2.72%		
*Pituitary Gland: Pars Distalis or Unspecified Site: Carcinoma or Adenoma											
Overall Incidence	Total	13/50 (26%)	Mean 13/50 (26%)	SD 0%		Total	19/52 (37%)	Mean 13/50 (26%)	SD 7.45%		
*Pituitary Gland: Pars Intermedia: Adenoma											
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%		Total	0/52 (0%)	Mean 1/50 (2%)	SD 1.41%		
*Pituitary Gland: Pars Intermedia: Carcinoma or Adenoma											
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%		Total	0/52 (0%)	Mean 1/50 (2%)	SD 1.41%		
*Prostate: Adenoma											
Overall Incidence	Total	5/50 (10%)	Mean 5/50 (10%)	SD 0%							
*Prostate: Carcinoma or Adenoma											
Overall Incidence	Total	5/50 (10%)	Mean 5/50 (10%)	SD 0%							

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

Male						Female					
*Salivary Glands: Schwannoma Malignant											
Overall Incidence	Total	1/50 (2%)	Mean 1/50 (2%)	SD 0%		Total	0/51 (0%)	Mean 0/101 (0%)	SD 0%		
#Skeletal Muscle: Rhabdomyosarcoma											
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%		Total	0/52 (0%)	Mean 1/102 (0.98%)	SD 1.41%		
#Skeletal Muscle: Rhabdomyosarcoma or Rhabdomyoma											
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%		Total	0/52 (0%)	Mean 1/102 (0.98%)	SD 1.41%		
#Skin: Basal Cell Adenoma											
Overall Incidence	Total	1/50 (2%)	Mean 1/50 (2%)	SD 0%		Total	0/52 (0%)	Mean 0/102 (0%)	SD 0%		
#Skin: Basal Cell Adenoma or Basosquamous Tumor Benign											
Overall Incidence	Total	1/50 (2%)	Mean 1/50 (2%)	SD 0%		Total	0/52 (0%)	Mean 0/102 (0%)	SD 0%		
#Skin: Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma											
Overall Incidence	Total	1/50 (2%)	Mean 1/50 (2%)	SD 0%		Total	0/52 (0%)	Mean 0/102 (0%)	SD 0%		

#: Denominator is number of animals necropsied

Version: May2011
 Contract/Lab: All Laboratories
 Species: RATS
 Strain: Harlan Sprague-Dawley
 Length of Study: CHRONIC

Toxicology Data Management System
 Tumor Incidence for Selected Control Animal Groups
Route: ALL ROUTES
Vehicle: ALL VEHICLES

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Male					Female				
#Skin: Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma									
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	0/52 (0%) 0/102 (0%)	Mean 0%	SD 0%	
.....									
#Skin: Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelioma									
Overall Incidence	Total	3/50 (6%)	Mean 6%	SD 0%	Total	1/52 (2%) 1/102 (0.98%)	Mean 0.96%	SD 1.36%	
.....									
#Skin: Fibroma									
Overall Incidence	Total	5/50 (10%)	Mean 10%	SD 0%	Total	2/52 (4%) 2/102 (1.96%)	Mean 1.92%	SD 2.72%	
.....									
#Skin: Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma									
Overall Incidence	Total	5/50 (10%)	Mean 10%	SD 0%	Total	2/52 (4%) 2/102 (1.96%)	Mean 1.92%	SD 2.72%	
.....									
#Skin: Hemangiosarcoma									
Overall Incidence	Total	1/50 (2%)	Mean 2%	SD 0%	Total	1/52 (2%) 1/102 (0.98%)	Mean 0.96%	SD 1.36%	
.....									
#Skin: Keratoacanthoma									
Overall Incidence	Total	2/50 (4%)	Mean 4%	SD 0%	Total	1/52 (2%) 1/102 (0.98%)	Mean 0.96%	SD 1.36%	

*: Denominator is number of animals with tissues examined microscopically
 #: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

			Male			Female		
#Skin: Neural Crest Tumor								
Overall Incidence	Total	1/50 (2%)	Mean 1/50 (2%)	SD 0%	Total	0/52 (0%)	Mean 0/50 (0%)	SD 0%
.....								
#Skin: Neurofibrosarcoma or Schwannoma (malignant or NOS)								
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%	Total	1/102 (0.98%)	Mean 0/50 (0%)	SD 1.36%
.....								
#Skin: Neurofibrosarcoma, Neurofibroma, or Schwannoma (benign, malignant or NOS)								
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%	Total	1/102 (0.98%)	Mean 0/50 (0%)	SD 1.36%
.....								
#Skin: Schwannoma Malignant								
Overall Incidence	Total	0/50 (0%)	Mean 0/50 (0%)	SD 0%	Total	1/102 (0.98%)	Mean 0/50 (0%)	SD 1.36%
.....								
#Skin: Squamous Cell Papilloma, Papilloma, Squamous Cell Carcinoma or Keratoacanthoma								
Overall Incidence	Total	2/50 (4%)	Mean 2/50 (4%)	SD 0%	Total	1/102 (0.98%)	Mean 0/50 (0%)	SD 1.36%
.....								
#Skin: Squamous Cell Papilloma, Papilloma, or Keratoacanthoma								
Overall Incidence	Total	2/50 (4%)	Mean 2/50 (4%)	SD 0%	Total	1/102 (0.98%)	Mean 0/50 (0%)	SD 1.36%

*: Denominator is number of animals with tissues examined microscopically

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

				Male			Female			
*Testes: Adenoma										
Overall Incidence	Total	2/50 (4%)	2/50 (4%)	Mean 4%	SD 0%					
*Thyroid Gland: C-Cell: Adenoma										
Overall Incidence	Total	13/50 (26%)	13/50 (26%)	Mean 26%	SD 0%	Total	9/51 (18%)	10/50 (20%)	Mean 18.82%	SD 1.66%
*Thyroid Gland: C-Cell: Carcinoma										
Overall Incidence	Total	1/50 (2%)	1/50 (2%)	Mean 2%	SD 0%	Total	2/51 (4%)	1/50 (2%)	Mean 2.96%	SD 1.36%
*Thyroid Gland: C-Cell: Carcinoma or Adenoma										
Overall Incidence	Total	13/50 (26%)	13/50 (26%)	Mean 26%	SD 0%	Total	11/51 (22%)	11/50 (22%)	Mean 21.78%	SD 0.31%
*Thyroid Gland: Follicular Cell: Adenoma										
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%	Total	1/51 (2%)	0/50 (0%)	Mean 0.98%	SD 1.39%
*Thyroid Gland: Follicular Cell: Carcinoma or Adenoma										
Overall Incidence	Total	0/50 (0%)	0/50 (0%)	Mean 0%	SD 0%	Total	1/51 (2%)	0/50 (0%)	Mean 0.98%	SD 1.39%

#: Denominator is number of animals necropsied

Length of Study: CHRONIC

Vehicle: ALL VEHICLES

Report Date: 05/17/2011

Male						Female					
#Tooth: Odontoma											
			0/50	(0%)			1/52	(2%)	0/50	(0%)	
Overall Incidence	Total	0/50 (0%)	Mean	0%	SD 0%	Total	1/102 (0.98%)	Mean	0.96%	SD	1.36%
.....											
#Uterus: Carcinoma											
							2/52	(4%)	1/50	(2%)	
Overall Incidence						Total	3/102 (2.94%)	Mean	2.92%	SD	1.31%
.....											
#Uterus: Polyp Stromal											
							3/52	(6%)	8/50	(16%)	
Overall Incidence						Total	11/102 (10.78%)	Mean	10.88%	SD	7.23%
.....											
#Uterus: Sarcoma Stromal or Polyp Stromal											
							3/52	(6%)	8/50	(16%)	
Overall Incidence						Total	11/102 (10.78%)	Mean	10.88%	SD	7.23%
.....											
#Uterus: Schwannoma Malignant											
							1/52	(2%)	0/50	(0%)	
Overall Incidence						Total	1/102 (0.98%)	Mean	0.96%	SD	1.36%
.....											
#Uterus: Squamous Cell Carcinoma											
							0/52	(0%)	1/50	(2%)	
Overall Incidence						Total	1/102 (0.98%)	Mean	1%	SD	1.41%

#: Denominator is number of animals necropsied

Version: May2011
Contract/Lab: All Laboratories
Species: RATS
Strain: Harlan Sprague-Dawley
Length of Study: CHRONIC

Toxicology Data Management System
Tumor Incidence for Selected Control Animal Groups
Route: ALL ROUTES
Vehicle: ALL VEHICLES

Male						Female									
#Vagina: Polyp															
Overall Incidence						Total	1/52 1/102	(2%) (0.98%)	0/50 Mean	(0%) 0.96%	SD 1.36%				
.....															
#Vagina: Squamous Cell Carcinoma															
Overall Incidence						Total	1/52 1/102	(2%) (0.98%)	0/50 Mean	(0%) 0.96%	SD 1.36%				
.....															
#Zymbal's Gland: Carcinoma															
Overall Incidence						Total	1/50 Mean	(2%) 2%	SD 0%	Total	0/52 0/102	(0%) (0%)	0/50 Mean	(0%) 0%	SD 0%
.....															
#Zymbal's Gland: Carcinoma or Adenoma															
Overall Incidence						Total	1/50 Mean	(2%) 2%	SD 0%	Total	0/52 0/102	(0%) (0%)	0/50 Mean	(0%) 0%	SD 0%
.....															

*: Denominator is number of animals with tissues examined microscopically
#: Denominator is number of animals necropsied